ELSEVIER

Toxicology 213 (2005) 279–284

TOXICOLOGY

www.elsevier.com/locate/toxicol

Contents of volume 213

Contents of Volume 213 Nos. 1–2

Articles

Tolerability of cyclosphosphamide and methotrexate induction immunosuppression in nonhuman primates
H.-J. Schuurman, H.T. Smith, E. Cozzi (UK, USA) 1–12

Effects of bisphenol-A (BPA), dibutylphtalate (DBP), benzophenone-2 (BP2), procymidone (Proc), and linurone (Lin) on fat tissue, a variety of hormones and metabolic parameters: A 3 months comparison with effects of estradiol (E2) in ovariectomized (ovx) rats
D. Seidlová-Wuttke, H. Jarry, J. Christoffel, G. Rimoldi, W. Wuttke (Germany) 13–24

Melatonin protects against lead-induced hepatic and renal toxicity in male rats
G.H. El-Sokkary, G.H. Abdel-Rahman, E.S. Kamel (Egypt) 25–33

Oral exposure to culture material extract containing fumonisins predisposes swine to the development of pneumonitis caused by *Pasteurella multocida*
D.J. Halloy, P.G. Gustin, S. Bouhet, I.P. Oswald (Belgium, France) 34–44

Phosphatidylinositol 3-kinase activator reduces motor neuronal cell death induced by G93A or A4V mutant SOD1 gene
S.-H. Koh, H. Roh, S.M. Lee, H.-J. Kim, M. Kim, K.W. Lee, H.-T. Kim, J. Kim, S.H. Kim (Republic of Korea) 45–55

Comparative study of cytotoxicity and oxidative stress induced by deoxynivalenol, zearalenone or fumonisin B1 in human intestinal cell line Caco-2
J.H. Kouadio, T.A. Mobio, I. Baudrimont, S. Moukha, S.D. Dano, E.E. Creppy (France, Cote d'Ivoire) 56–65

Ultrafine titanium dioxide particles in the absence of photoactivation can induce oxidative damage to human bronchial epithelial cells
J.-R. Gurr, A.S.S. Wang, C.-H. Chen, K.-Y. Jan (Taiwan) 66–73

Measurement of radical-scavenging ability in hepatic metallothionein of rat using in vivo electron spin resonance spectroscopy
M. Yoshida, Y. Saegusa, A. Fukuda, Y. Akama, S. Owada (Japan) 74–80

Caffeic acid phenethyl ester (CAPE) prevents transformation of human cells by arsenite (As) and suppresses growth of As-transformed cells
C. Yang, J. Wu, R. Zhang, P. Zhang, J. Eckard, R. Yusuf, X. Huang, T.G. Rossman, K. Frenkel (USA) 81–96

Very low levels of methylmercury induce cell death of cultured rat cerebellar neurons via calpain activation
M. Sakaue, M. Okazaki, S. Hara (Japan) 97–106

Dimethyl 2,2-dichlorovinyl phosphate (DDVP) markedly decreases the expression of perforin, granzyme A and granulysin in human NK-92CI cell line
Q. Li, A. Nakadai, M. Ishizaki, K. Morimoto, A. Ueda, A.M. Krensky, T. Kawada (Japan, USA) 107–116

Towards the creation of an international toxicology information centre
P.N. Judson, P.A. Cooke, N.G. Doerrer, N. Greene, R.P. Hanzlik, C. Hardy, A. Hartmann, D. Hinchliffe, J. Holder, L. Müller, T. Steger-Hartmann, A. Rothfuss, M. Smith, K. Thomas, J.D. Vessey, E. Zeiger (UK, USA, Switzerland, Germany) 117–128

A comprehensive evaluation of the testicular toxicity of dichlorvos in Wistar rats
A. Okamura, M. Kamijima, E. Shibata, K. Ohtani, K. Takagi, J. Ueyama, Y. Watanabe, M. Omura, H. Wang, G. Ichihara, T. Kondo, T. Nakajima (Japan) 129–137

doi:10.1016/S0300-483X(05)00396-3

2,4-Diaminotoluene (2,4-DAT)-induced DNA damage, DNA repair and micronucleus formation in the human hepatoma cell line HepG2
I. Séverin, A. Jondeau, L. Dahbi, M.-C. Chagnon (France) 138–146
Evaluation of estrogenic and androgenic activity of butylated hydroxyanisole in immature female and castrated rats
H.G. Kang, S.H. Jeong, J.H. Cho, D.G. Kim, J.M. Park, M.H. Cho (Republic of Korea) 147–156
Ligands for the peroxisome proliferator-activated receptor-γ have inhibitory effects on growth of human neuroblastoma cells in vitro
U. Valentiner, M. Carlsson, R. Erttmann, H. Hildebrandt, U. Schumacher (Germany) 157–168
Effect of reduced glutathione treatment on selenosis, blood selenium concentration and glutathione peroxidase activity after repeated short-term selenium exposure in buffalo calves
M.D. Deore, A.K. Srivastava, S.K. Sharma (India) 169–174

Instructions to Authors 175–176

Contents of Volume 213 No. 3

Special Issue:

BTS Annual Congress, University of Warwick, Warwick, UK, 21st to 23rd March, 2005

and

Joint BPS/BTS Meeting – Adverse reactions to drugs and chemicals: Studies from molecule to man, University of Liverpool, Liverpool, UK, 9th to 10th September, 2004

Edited by C.J. Waterfield

Young Investigator's Award Lecture
Molecular responses to xenoestrogens: Mechanistic insights from toxicogenomics
Jonathan G. Moggs 177

Invited Speaker's Papers and Abstracts
Young Investigators Award Lecture
Molecular responses to xenoestrogens: Mechanistic insights from toxicogenomics
Jonathan G. Moggs 195
The John Barnes Prize Lecture
Epigenetics, DNA methylation and carcinogenesis: Implications for safety assessment
Jay I. Goodman 196
Royal College of Pathologists Kohn Lecture 2005
The role of pathology in drug safety
John R. Foster 197

Symposium: Biotechnology-Derived Therapeutics: Exciting Developments and Cautionary Tales
Protection and selection for gene therapy in the haemopoietic system
Leslie J. Fairbairn, Laura E. Hollins, Lorna B. Woolford, Dorothy Gagen, Michael D. Milsom 198
Analysis of the regulation of pProgrammed cell death using RNA interference screens
L. Miguel Martins 198
Update on treatment of human SCID by somatic gene therapy
Adrian J. Thrasher 199

Where we have been and lessons learned—an historical perspective
Maggie Dempster 199
Applying lessons learned to the safety assessment of future novel therapies
Jennifer Sims 200

Symposium: Nephrotoxicity
Chemical-induced site-specific nephrotoxicity
Gabrielle M. Hawksworth 200
The Eker rat as a model of chemical-induced nephrocarcinogenesis
Terrence J. Monks, Serrine S. Lau 201
Genomic and proteomic approaches to the study of nephrotoxicity: Benefits and limitations
Clive N. Kind 202
The role of transporters in xenobiotic induced nephrotoxicity
Frans G.M. Russel, Rosalinde Masereeuw 203
Metabonomics: A non-invasive method for investigating nephrotoxicity
Elaine Holmes 203

Symposium: Visualizing Toxicity: The Application of Imaging Systems from Molecules to Man
Imaging cell death
Jon D. Lane, Virginie M. Betin, David K. Moss 204
High content biology approaches to cell toxicity
Edward K. Ainscow, Emma L. Cooke, James E. Pilling, Tony Goodall, Michael Sullivan 204
Real-time imaging of cell division and apoptosis
Michael R.H. White, David E. Nelson, James R. Johnson, Violaine See, Martin Elliott, Caroline A. Horton, Claire A. Gibney, Bethany E. Foreman, Glyn Nelson, David G. Spiller 205
Some applications of MRI in pharmaceutical safety assessment
David G. Reid 206
Applications of AMS and PET in toxicology and human microdosing
Graham Lappin, R. Colin Garner 206

Symposium: The Intermediate and Delayed Sequelae of Organophosphorus Insecticide Exposure
Mechanisms of immediate and delayed organophosphorus insecticide toxicity
David Ray 207
Intermediate syndrome: Does it exist and can it be prevented?
Timothy C. Marrs, Lakshman Karalliedde, David Baker 208
Organophosphate induced delayed polyneuropathy (OPIDP): Features and mechanisms
Marcello Lotti 210
Are there long-term sequelae from a single acute organophosphorus (OP) insecticide exposure?
J. Alister Vale 211
Do organophosphorus insecticides cause toxicity following exposure at "low dose"?
D. Nicholas Bateman 212

Symposium: Chemical Allergy: Clinical Perspectives and Approaches to Hazard Identification and Characterisation
Allergic contact dermatitis in the clinic: epidemiology and risk assessment failures
Ian R. White 213
Skin sensitisation: Hazard identification and characterisation
David A. Basketter 214
Occupational respiratory allergy
Anthony N. Taylor 214
Respiratory allergy to chemicals: Hazard identification and characterisation
Rebecca J. Dearman, Ian Kimber 215
Novel approaches to hazard identification: Exploiting dendritic cells responses
Marc J. Pallardy, Saadia Kerdine, Fanny Boisleve 216

Symposium: Mitochondria: A Role in Toxicity
Paracetamol (acetaminophen)-induced hepatic injury: Apoptosis, necrosis and mitochondria
George E.N. Kass 217

The basic biology of dna replication, and how it contributes eventually to pathology
Joanna Poulton, Neil Ashley 217
The mitochondrial permeability transition: A pore way to die
Andrew P. Halestrap 218
Mitochondrial toxicity: Myths and facts in HIV lipodystrophy
Simon Jones 219
Bimodal targeting of inducible cytochromes P450 to mitochondria: Role in drug metabolism and toxicity
Narayan G. Avadhani, H.K. Anandatheerthavarada, Michelle Cook, Rajendrarani Chirumamilla 219

Symposium: Childrens Health Issues
ECETOC task force summary of important areas of concern in children's health
David Owen 220
Childhood asthma: Dietary considerations
Anthony Seaton 220
Androgens and oestrogens in male reproductive development and the potential impact of endocrine modulators
Richard M. Sharpe, Stewart Rhind, Carol Kyle, Chris McKinnell, Hayley Scott, Nina Atanassova, Nina Hallmark, I. Kim Mahood 221
Childhood obesity and disease risk
Elizabeth M.E. Poskitt 221
The complexity of childhood
Dennis A. Smith 222

Oral Communications
Gene ontology mapping as an unbiased method for identifying molecular pathways and processes affected by toxicant exposure: application to acute effects caused by the non-genotoxic carcinogen, diethylhexylphthalate
Richard A. Currie, Vincent Bombail, David J. Moore, Fei Ling Lim, Jason Oliver, Victoria Gwilliam, Kevin Chipman, Ian Kimber, George Orphanides, Jonathan G. Moggs 223
α_1-Acid glycoprotein reverses cocaine-induced sodium channel blockade in cardiac myocytes
Yu-ling Ma, John A. Henry 224
The effect of sodium lauryl sulphate upon the distribution of testosterone through human skin in vitro
James C. Wakefield, David J. Lockley, Ruth Pendlington, Helen Minter, Faith M. Williams 224
The pancreatic AR42J-B13 cell line differentiates into non-hepatic cell types in response to a range of factors and cytokines
Karen Wallace, Carylyn J. Marek, Matthew C. Wright 225
The pregnane X receptor modulates cytokine expression in human heptic stellate cells—a target for reducing the adverse effects of chronic liver injury
Emma L. Haughton, Carylyn J. Marek, Val Leel, Steven A. Tucker, Zainab Bascal, Matthew Koruth, Julie E. Trim, Derek A. Mann, Matthew C. Wright 226
Disabled pregnane X receptor function potentiates constitutive androstane receptor-mediated CYP3A induction
Dimitrios K. Konstantinou, Carylyn J. Marek, Robert J. Edwards, Gabrielle M. Hawksworth, Bryan Goodwin, Matthew C. Wright 227
Functional expression and regulation of organic cation transporters in freshly isolated human proximal tubular cells
Kevin A. Duffy, Iain Gardner, Dennis A. Smith, Gabrielle M. Hawksworth 228
Chemosensitivity testing in primary cultures from malignant gliomas
Iyer Venkatachalam, Roberts Philip, Lea Robert, Ashton Katherine, Dawson Timothy, Golash Aprajay, Davis Charles ... 229
Incorporating variability in physiological parameters in a physiologically-based pharmacokinetic model for workers to investigate acute central nervous system toxicity
Anna L. Rowbotham, Martin Spendiff, George Loizou 230

Posters
Developmental toxic effects of di-*iso*-butyl phthalate administered by gavage to rats
Anne-Marie Saillenfait, Jean-Philippe Sabaté, Frédéric Gallissot 231
Cytotoxicity of diazinon and chlorpyrifos in rat and mosquito cell cultures
Paul J. Dierickx 232
Acute transcriptomics response of lung epithelial cells to cigarette smoke particulate matter: comparison with data from a human study
Heather Maunders, Eian D. Massey, Audrey Richter 233

Transcript profiling of gene expression changes associated with an increased incidence of cancer after exposure of neonatal mice to xenoestrogens
David J. Moore, Fei Ling Lim, Richard Currie, Helen Tinwell, Ian Kimber, John Ashby, George Orphanides, Jonathan G. Moggs 234
Can cancer cells recover from treatment with polyamine analogues?
Han Liu, Sarah Williams-Spinks, Patrick M. Woster, Heather M. Wallace 234
In vitro skin penetration of Cereclor S52 through human epidermis
Jon R. Heylings, Ian R. Johnson, David G. Farrar 235
Identification of circadian rhythm regulators as early estrogen-responsive genes in the immature mouse uterus
Richard A. Currie, Ruth Stuckey, Helen Tinwell, Fei Ling Lim, David Moore, Ian Kimber, John Ashby, George Orphanides, Jonathan G. Moggs 236
Organic anion transporting polypeptide levels are increased by microsomal enzyme inducers in vivo and in vitro
David E. Cowie, Richard J.Weaver, Gabrielle M. Hawksworth 237
A Bayesian network model to predict hazard potency for skin sensitisation
Donna Jefferies, Laurence J. Aspinall, Ana-Maria Madrigal, Robert J. Safford, Catherine J. Clapp, Mark Chamberlain, David A. Basketter 238
Factors affecting variability in the comet assay
Sheetal Dyall, Catherine C. Smith, Debbie J. Godwin, Karen L. Oldman, Michael R. O'Donovan, Elizabeth A. Martin 239
Up-regulation of stress proteins in human hepatocyte carcinoma HepG2 cells in response to cadmium chloride and sodium arsenite
Elke Gottschalg, Ruth C. Waller, Abigail K. Ryan, Clive N. Kind, Jeffrey R. Fry 240
Formamidopyrimidine glycosylase (FPG) modification of the comet assay: utility in distinguishing oxidative damage from other DNA lesions
Catherine C. Smith, Sheetal Dyall, Michael R. O'Donovan, Elizabeth A. Martin 241
The influence of chemical structure on the toxicity of organophosphate pesticides
Elaine Mutch, Kathryn A. Atherton, Samantha Jameson, Faith M. Williams 242
PEG glucuronides: evaluation of the potential for vehicle-related metabolites to indicate alterations in liver function
Stephanie Ringeissen, Maria L. Beaumont, Martin Sandvoss, Brian C. Sweatman, Edit Kurali, Patrick J. Wier, John N. Haselden 243
Cardiotoxicity of isoproterenol and levels of serum cardiac troponin I in the Han Wistar rat: a threshold dose response study
Sally Brady, Sara Jamalfar, Malcolm York, Cheryl Scudamore, Ian Roman, Clare Stamp, Aubrey Swain, Thomas Williams, William Griffiths, Laurence Patterson, John Turton 244
Repeat dose study to investigate the toxicity of doxorubicin in the female Han Wistar rat
Despina Monokrousou, Sally Brady, Sandra Chung, Lindsay Green, Malcolm York, Peter Clements, Ian Roman, Aubrey Swain, Clare Stamp, Thomas Williams, Gareth Evans, William Griffiths, Laurence Patterson, John Turton 245
Cytokine profiling of chemical allergens: utility of message versus protein end points
Rebecca J. Dearman, Brian F. Flanagan, Catherine J. Betts, Helen T. Caddick, Ian Kimber 246
Influence of age on local lymph node assay responses to hexyl cinnamic aldehyde
Catherine J. Betts, Lorna Beresford, Rebecca J. Dearman, Ian Kimber 246
Impact of cell injury on cytokine secretion profiles of mouse dendritic cells
Catherine J. Betts, Gemma Beckwith, Laura Bailey, Cindy A. Ryan, G. Frank Gerberick, Rebecca J. Dearman, Ian Kimber 247
Cannabidiol: transcriptional and post-transcriptional induction of rat P450s
Karen McArdle, Roger Pertwee, Geoffrey Guy, Brian Whittle, Gabrielle Hawksworth 248
Protection from Poisons Using Recombinant Human Antibodies
Lucy J. Elrick, Matthew Drever, Jaqui McElhiney, Linda A. Lawton, Andrew R. Porter, Matthew C. Wright 249
The role of the adenine nucleotide translocator (ANT) in apoptosis in response to gliotoxin
Steven J. Tucker, James G. Orr, Carylyn J. Marek, Emma L. Haughton, Lucy J. Elrick, Julie E. Trim, Andrew P. Halestrap, Matthew C. Wright 251

Joint BPS/BTS Meeting Poster Abstracts

Posters

Species differences in xenobiotic activation of the pregnane × receptor
Anthony J. Zucker, Gordon G. Gibson, Barry Jones, Maurice Dickins, Nick. J. Plant 253
Initial characterisation of the control of human Pregnane X-Receptor gene expression
Sihem Aoubadi, G. Gordon Gibson, Nick Plant 254
Coordinate regulation of cellular proliferation and apoptosis in rodent liver
Elizabeth Anderson, Gordon G. Gibson, Jon Lyon, Nicholas J. Plant 255

Hepatotoxicity of Δ^9-tetrahydrocannabinol (Δ^9-THC) and cannabidiol (CBD) *in vitro*
Adam Taylor, Gary Cameron, Gabrielle Hawksworth 255
Cannabidiol: Transcriptional and post-transcriptional induction of rat P450s
Karen McArdle, Roger Pertwee, Geoffrey Guy, Brian Whittle, Gabrielle Hawksworth 256
A comparison of the antinociceptive and adverse effects of a μ-opioid receptor agonist with a δ-opioid receptor agonist
Elizabeth L. Gallantine, Farhad Kamali, Theo F. Meert 258
Biochemical aspects of the toxicity of endoperoxides
Amy E. Mercer, Paul M. O'Neil, Dominic P. Williams, B. Kevin Park 258
Quantitative profiling of cytochromes P450 by isotope coded affinity tagging
Rosalind E. Jenkins, Neil R. Kitteringham, Tony J. Hunt, Brian J. Boucher, Marjorie S. Minkoff, Robert Elsby, Colin Henderson, C. Roland Wolf, Stephen R. Pennington, B. Kevin Park 260
Interindividual variation in the expression of the cellular redox sensor Keap1 and its novel splice variants in human lymphocytes
Azman Abdullah, Christopher E.P. Goldring, Andrew Owen, Neil R. Kitteringham, B. Kevin Park 261
Development of doxycycline-regulatable gene expression in hepatoma cells
Christopher E. P. Goldring, Neil R. Kitteringham, Cerys Lovatt, Rosalind Jenkins, Laura E. Randle, Azman Abdullah, Andrew Owen, Xiaoping Liu, Christian Berens, Wolfgang Hillen and B. Kevin Park 262
Effects of chlorpyrifos and chlorpyrifos-methyl on cytoskeletal proteins and MAP kinase (ERK 1/2) activation in N2a cells
Magdalini Sachana, John Flaskos, Alan J Hargreaves 263
Association between serious carbamazepine hypersensitivity reactions and the HSP70 gene cluster
Ana Alfirevic, Tracy Mills, Pauline Harrington, Tracy Pinel, James Sherwood, Ansar Jawaid, John C. Smith, Ruth E. March, David W. Chadwick, B. Kevin Park, Munir Pirmohamed 264
Assessment of adipokine expression and mitochondrial toxicity in HIV patients with lipoatrophy on stavudine and zidovudine containing regimens
Simon P Jones, Nadeem Qazi, Ulrich A. Walker, Graeme Moyle, David J. Back, Munir Pirmohamed 265
Effect of nucleoside reverse transcriptase inhibitors and protease inhibitors on TNF-α and adiponectin mRNA expression in isolated subcutaneous and omental mature human adipocytes
Simon P Jones, C.J. Waitt, David J Back, Munir Pirmohamed 266
Are differences in chemical structure of NSAIDS reflected in their profiles of adverse drug reactions?
Joyce J. de Langen, Eugène P. van Puijenbroek 266
Immunohistochemical analysis of acetylation, proliferation and apoptosis in tumour xenografts following single dose oral-histone deacetylase inhibitor administration
Tijana Mitić, Jennifer S McKay 267
The relevance of rat Leydig cell tumours for human health
Ian R Indans, Peter J Howden 268
Local lymph node assay—Regulatory experience of testing new industrial chemicals for skin sensitisation potential
Amanda Cockshott, Peter Evans 269
Synergistic effects of food additives in vitro
Karen Lau, W. Graham McLean, Dominic P. Williams, C. Vyvyan Howard 269
Relationship between secondary peak plasma of terfenadine and QT interval prolongation
Stacey Lambert, Nichole Byrne, William Herron, Sarra K. Laycock, Alison Templeton 270
The read-across of toxicological data in the notification of new substances
Andrea Caitens, Peter Evans 271

Author index of volume 213 273
Subject index of volume 213 275
Contents of volume 213 279